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(54) Illuminated legend indicator

(57) A tamper-proof illuminated legend indicator for a passenger lift comprises a housing configured as an open-topped box 1 having flanges 2 extending from the rim. The housing retains an electric light bulb holder (4). A translucent cover plate 8 is located over the open top and flanges of the housing, fixing holes 5a in the cover plate being aligned with corresponding fixing holes 5 in the housing flanges. An opaque legend plate 9 has an aperture in the shape of a selected legend and is secured over and projects from the cover plate. The housing and cover plate are mounted as a sub-assembly on a face plate (11), the legend plate projecting with a clearance fit through an aperture in the face plate and the fixing means being inaccessible from the front.

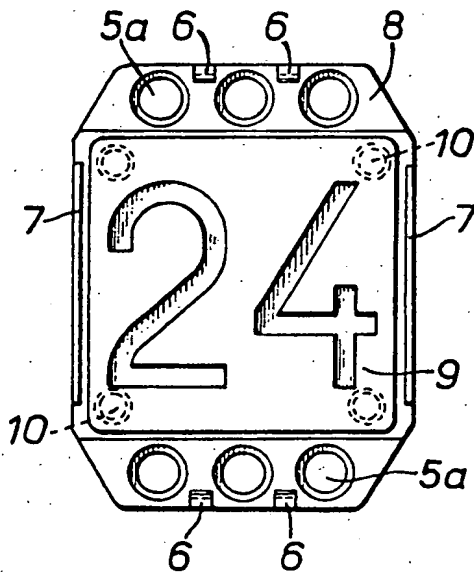


FIG. 1.

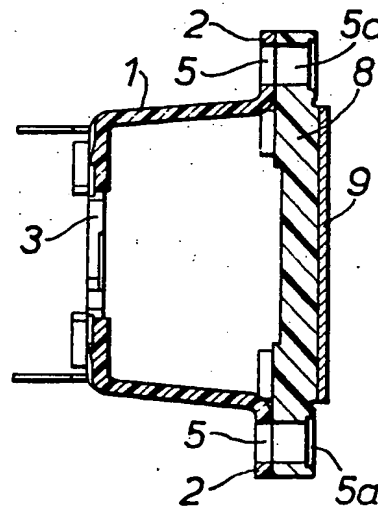


FIG. 2.

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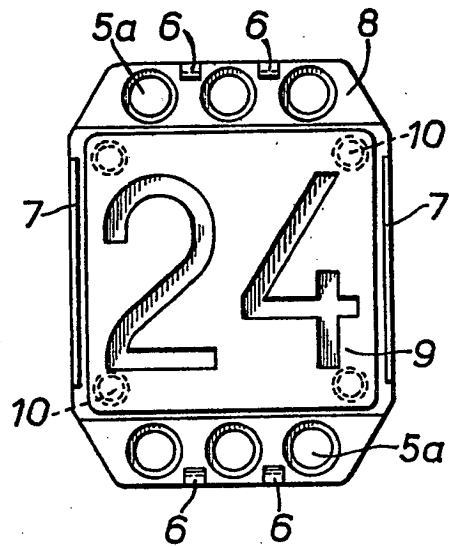


FIG. 1.

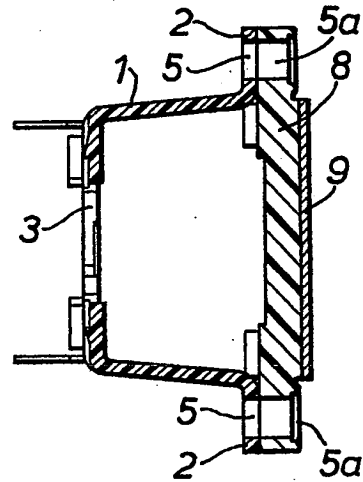


FIG. 2.

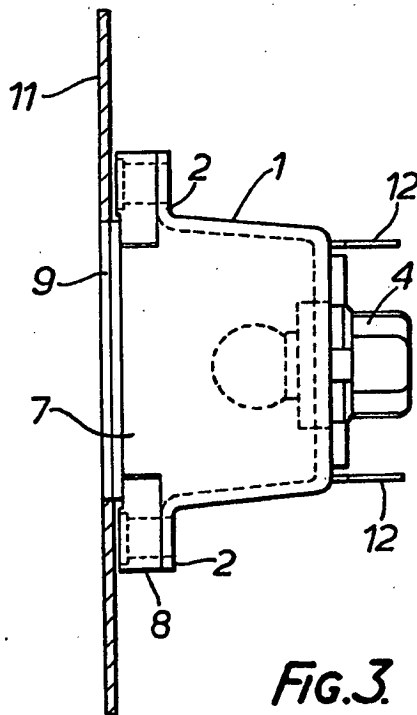


FIG. 3.

SPECIFICATION

Illuminated legend indicator

- 5 This invention relates to an illuminated legend indicator, such for example as installed in a passenger lift to indicate the floor location of the lift car.

- It is a requirement of such indicators that
10 they should be tamper-proof, particularly when installed in an unsupervised environment. Also, a typical installation incorporates a plurality of indicators arranged in an array or bank and, furthermore, different installations frequently involve different arrangements of indicator legends and different legends per se (e.g. legends which are not roman letters or arabic numerals). Providing for these various requirements can be expensive, particularly if
15 a level of stock is to be maintained.

The object of the present invention is to provide an illuminated legend indicator which enables the aforementioned requirements to be met at an economic cost.

- 25 One embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:—

- 30 *Figure 1* is a front view of an indicator according to the invention;

Figure 2 is a vertical cross-section taken on the centre line of *Fig. 1*; and

Figure 3 is a side view of the indicator of *Fig. 1* mounted on a face plate.

- 35 Referring to the drawings, the indicator comprises a box-like housing 1, which is moulded from a suitable plastics material. The housing includes two integral flanges 2 along opposite edges and an aperture 3 in the base for receiving a bulb holder 4 (*Fig. 3*). Each
40 flange 2 includes fixing holes 5 (three as shown) and a pair of integral upstanding catches 6. Upstanding rim portions 7 are integrally formed along the other pair of opposite edges of the housing.

- A translucent cover plate 8, which is preferably a polycarbonate plastics material, is shaped substantially to conform to the shape of the housing as seen in *Fig. 1*. The plate
50 includes edge recesses to receive the catches 6 and further recesses to receive the rim portions 7. The catches 6 are slightly resilient and are formed with projections at their free ends which snap over the edge of the cover plate to lightly retain the cover plate in position on the housing during assembly. The cover is provided with the holes 5a which align with holes 5 in the flanges 2.

- An opaque legend plate 9 carries a given
60 legend (as shown) the numeral '24' which is formed by removing the material of the legend plate so that light may pass through the plate. In accordance with a feature of the invention, the legend plate is stainless steel.

- 65 The legend plate carries on its rear-surface

lugs 10, shown in broken lines in *Fig. 1*, which are securely locked into the cover plate 8 during moulding of the latter so that the cover plate and legend plate are a unitary element of the indicator assembly.

- 70 As seen in *Fig. 3*, the indicator assembly as so far described is mounted on a face plate 11, the face plate having an aperture in which the legend plate is a close fit. The respective thickness dimensions are chosen so that the front face of the legend plate (i.e. as viewed from the left-hand side of *Fig. 3*) is flush with the front face of the face plate. Holes are provided in the face plate which align with the
75 holes 5, 5a of the indicator assembly and stud welds (not shown) through these holes secure the housing 1 and the cover plate 2 to the face plate 11.

- Depending on the number of individual
85 indicators required in a given indicator unit, the face plate is provided with the appropriate number of apertures. Cover plates incorporating the required legend plates are selected from stock and snapped into standard housings to form indicator assemblies which are then stud welded to the face plate at the appropriate apertures. Standard bulb holders 4, with bulb, are then locked into the indicator housings. Associated electrical terminals
90 12 receive the external electrical connections.

- The invention provides an illuminated legend indicator which is simply and readily assembled from standard parts and which is inherently tamper-proof from the front face of the face plate. Furthermore, when the cover plate is made of a polycarbonate plastics material and the legend plate is made of stainless steel, the indicator is virtually indestructible at the front face of the face plate.

CLAIMS

1. An illuminated legend indicator comprising a housing configured as an open-topped box having flanges extending from the rim thereof in the plane of the open top, means extending through said housing for receiving and retaining an electric light bulb holder, a translucent cover plate adapted for location over the open top and flanges of said
110 housing, fixing holes in the cover plate aligned with corresponding fixing holes provided in said housing flanges, an opaque legend plate including an aperture there-through in the shape of a selected legend and secured over the external surface of said cover plate so as to project therefrom by means not accessible at the legend plate, and a face plate on one surface of which the sub-assembly comprising said housing and cover
115 plate is mounted by fixing means not accessible from the other surface of the face plate and passing through said aligned holes, said legend plate projecting with a clearance fit through an aperture in said face plate.
- 120 2. An indicator as claimed in claim 1,
- 125
- 130

wherein said housing and said cover plate are provided with co-operating engagement means for releasably attaching the cover plate to the housing to constitute said sub-assembly prior to mounting of the sub-assembly on said face plate.

3. An indicator as claimed in claim 1 or 2, wherein said cover plate is a moulded plastics material and said legend plate is secured to the cover plate by lugs extending from the legend plate and embeded in the cover plate during the moulding thereof.

4. An indicator as claimed in any preceding claim, wherein said sub-assembly is mounted on said face plate by stud welds.

5. An indicator as claimed in any preceding claim, wherein said cover plate is formed of a polycarbonate plastics material.

6. An indicator as claimed in any preceding claim, wherein said legend plate is formed of stainless steel.

7. An indicator as claimed in any preceding claim, wherein a plurality of said sub-assemblies is mounted on said face plate, the legend plate of each sub-assembly projecting through a respective aperture in said face plate.

8. An illuminated legend indicator, arranged and constructed substantially as herein described with reference to the accompanying drawings.